MIDDLESEX COUNTY SUBSTANCE ABUSE ACTION COUNCIL (MCSAAC)

Epidemiologic Profile of Substance Use, Suicide & Problem Gambling

December 2012

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Abbreviations

AGA	American Gaming Association
ATOD	Alcohol, Tobacco, and Other Drugs
BAC	Blood Alcohol Content
CDC	Centers for Disease Control & Prevention
CESAR	Center for Substance Abuse Research
CNAW	Community Needs Assessment Workgroup
DAWN	Drug Abuse Warning Network (SAMHSA)
DMHAS	Department of Mental Health and Addiction Services
DUI	Driving Under the Influence
ED	Emergency Department
LPC	Local Prevention Council
MCSAAC	Middlesex County Substance Abuse Action Council
Mx. Cty.	Middlesex County
NIAAA	National Institute for Alcohol Abuse and Alcoholism
NIH	National Institutes for Health
NSDUH	National Survey on Drug Use and Health
OTC	Over The Counter (non-prescription medications)
SAMHSA	Substance Abuse and Mental Health Services Administration (U.S. Department of Health and Human Services)
TEDS	Treatment Episode Data Set (SAMHSA)
YRBS	Youth Risk Behavior Survey
YRBSS	Youth Risk Behavior Surveillance System

Executive Summary

With every passing year we are better able to track youthful alcohol, tobacco, and other drug use – as well as problem gambling and suicidal behavior – in Middlesex County. Ten years ago only a few schools surveyed their students. Today, all eleven public schools systems in Middlesex County survey their student bodies every two to four years for ATOD use, problem gambling, depression, suicide attempts, and other high-risk behavior. This report includes data from 8,012 student respondents in Middlesex County: 5,001 high school students and 3,011 middle school students.

The profile also relies on the 2011 Youth Risk Behavior Survey (YRBS) and the 2011 National Survey on Drug Use and Health: A Summary of National Findings 2011 (NSDUH). National and state level data is compared with data from Middlesex County for a holistic view of drug trends and their impact on our youth. Consequences are illustrated with data on criminal activity, lost productivity, treatment admissions, accidents, and death.

The information in this profile was considered by the Middlesex County Community Needs Assessment Workgroup (CNAW) in October, 2012. Their analysis of the impact of substance abuse on community health is described in the Summary of Priority Ranking. Their assessment of our region's readiness and capacity to deal with the problems is also part of this profile.

While alcohol remains the top drug of priority in terms of magnitude and impact, the focused efforts of Middlesex County coalitions on this problem has had a positive effect. The downward trend in student alcohol use between 2007 and 2012 evidenced through school surveys is consistent, gradual, and county-wide. This kind of change is sustainable and gives us confidence in our capacity to further reduce alcohol abuse in Middlesex County. CNAW members rated the ability of our population to address this problem at 3.9 on a scale of 5; the highest score of all the substances.

Middlesex County educators and law enforcement are concerned about the impact of marijuana's decriminalization and its approval as a medical drug. Local coalitions, however, are thinking ahead and tracking "perception of risk" trends, improving our capacity to handle any increase in youthful use of this substance.

Other illicit drugs including heroin and cocaine appear to be on a slightly upward trend in Middlesex County, Connecticut when compared with the rest of the country. The availability, use, and consequences of these drugs are included in this profile.

Three additional high risk behaviors have been added to this profile, and appear for the second time: prescription drug misuse and abuse, problem gambling, and suicide. This 2012 report carries far more data on all three behaviors than did the 2010 report. Strategies to counter these risks, already under implementation by MCSAAC and Local Prevention Councils are included under "capacity to address the problem."

Table of Contents

Introduction

Purpose of the profile

This profile provides stakeholders in Middlesex County with an overview of the most important substance abuse problems affecting our population, along with problem gambling and suicidal behavior. Data from seventeen noted sources is synthesized and presented in this profile. This information may be used by community coalitions for planning purposes, to develop the best, targeted strategies to reduce the harm of substances and high risk behaviors, especially among youth. It may also be used as a reference tool in writing grant proposals and fundraising for initiatives to reduce the harm of substance abuse.

Description of the RAC region

The Middlesex County Substance Abuse Action Council serves fifteen towns in south central Connecticut, including Chester, Clinton, Cromwell, Deep River, East Haddam, East Hampton, Essex, Durham, Haddam, Killingworth, Middlefield, Middletown, Old Saybrook, Portland, and Westbrook. These 15 towns are organized into 11 regional school districts and 11 Local Prevention Councils.

Middlesex County has a population of 165,676 or 4.6% of Connecticut's population of 3,574,097 and 19.8% of the South Central Region (Region 2) population of 836,610. The city of Middletown, with 28.75% of the county's population, is the region's only city.

Nearly a quarter of the population (24%) is made up of children and youth under age twenty-one. Seventy-six percent are adults. The percentage of Middlesex County residents who are male is 48.8% and female is 51.2%. The male median age in Middlesex County is 43.5 and female median age is 45.6, both several years older than the median age for Connecticut.

The percentage of Middlesex County residents who describe themselves as white, non-Hispanic (86.4%) is higher than the state (71.2%) and the South Central Region (72.2%). The percentage of Middlesex County residents who identify as Black and African American (non-Hispanic) is 4.4% percent. The percentage of Hispanic residents in Middlesex County (4.7%) is significantly lower than the state percentage of 13.4 percent. Middlesex County residents who describe themselves as Asian make up 2.5% of the population. The multi-racial percentage of 1.6% is nearly equal with the state's 1.7 percent.

Middlesex County residents who are high school graduates including those with equivalency (28.55%) is similar to the state percentage (28.6%) and both are slightly lower than the South Central region (30.15%). Those with some college but no degree (18.43%) is also comparable to the state (17.3%). The percentage of Middlesex County residents with a bachelor's degree (20.86%) is slightly higher than the state (18.35%) and comparable to the South Central Region (19.9%).

Middlesex County's median income of individuals 25 years and older over the past 12 months is $46,013 and is slightly higher that state median of $43,324. The town of Durham has the highest median income ($57,668) and Deep River has the lowest ($38,495). The county's poverty level is 6.2% compared to a state level of 9.2% and the South Central region of 9.4%. Middletown has the highest poverty level at 12% and is twice the rate of the county and higher than the state and region. Killingworth has the lowest poverty rate of 0.2% (U.S. Census Bureau, 2011).

Sources of data

1. 2008-2010 American Community Survey Connecticut Estimates, prepared by the U.S. Census Bureau, 2011
2. "2010 Biennial Report on the Collection and Evaluation of Data Related to Substance Use, Abuse, and Addiction Programs," (2010 Biennial Report, DMHAS)
3. "211 Data Report," Middlesex United Way (www.211ct.org)
4. "2011 National Survey on Drug Use and Health: A Summary of National Findings," SAMHSA

5. "Administrative Reports 2011," Office of the Chief Medical Examiner of Connecticut
6. "Connecticut Council on Problem Gambling: 2011 Annual Helpline Report," Middlesex County United Way
7. Connecticut Data Collaborative (www.ctdata.org) including reports from:
    - CT Department of Education
    - CT Department of Mental Health and Addiction Services
    - CT Department of Public Health
    - CT Department of Public Safety
    - United States Census 2010
8. "FFY2011 Annual Synar Reports: Tobacco Sales to Youth," SAMHSA
9. "Gross Sales for Lottery, Parimutual and Charitable Gaming: Fiscal Years 1972-2011," Connecticut Department of Consumer Protection
10. Monitoring The Future Study, 2012 Report, University of Michigan
11. NIAAA Newsletter, 2004 (Vol. 3). National Institute for Alcohol Abuse and Alcoholism
12. MCSAAC Student Survey Data, 2007-2009 and 2010-2012
    - Profiles of Student Life: Attitudes and Behaviors (Search Institute, Minnesota)
    - MCSAAC Student Survey, approved through a Drug Free Communities grant
13. NIH News: Wednesday, December 19, 2012. (Published online)
14. *Public Health Reports 2010,* U.S. Public Health Service, Association of Schools of Public Health.
15. *"State of the States: The AGA Survey of Casino Entertainment," American Gaming Association, May 2012.*
16. Treatment Episode Data Set (2011), National Admissions to Substance Abuse Treatment Services, SAMHSA.
17. "Vital Signs: Binge Drinking Prevalence, Frequency and Intensity Among Adults – United States, 2010," CDC
18. Youth Risk Behavior Survey Results, Connecticut High School 2011. Youth Risk Behavior Surveillance System, CDC.

Strengths and limitations of the profile

With every passing year we are better able to track alcohol, tobacco, and other drug (ATOD) use in Middlesex County. Ten years ago only a few schools surveyed their students. Today, all eleven public schools systems in Middlesex County survey their student bodies every two to four years for ATOD use, problem gambling, depression, suicide attempts, and other high-risk behavior. This report includes data from 8,012 student respondents in Middlesex County: 5,001 high school students and 3,011 middle school students.

This profile also relies on the 2011 Youth Risk Behavior Survey (YRBS) and the 2011 National Survey on Drug Use and Health: A Summary of National Findings 2011 (NSDUH). Due to the sample populations and methodologies, there are discrepancies between the findings of YRBS and NSDUH. For example, according to NSDUH, only 18.8% of Connecticut youth age 12 to 17 report past-30-day drinking. At the same time, YRBS reports a *high school* past-30-day drinking rate of 41.5%. It would require a less-than-zero percent of 12 and 13 year olds (middle school) to bring that YRBS 41.5% high school rate down to NSDUH's 18.8%

NSDUH data is collected from the general population by telephone interview. YRBS relies on anonymous surveys taken by students at their schools. As their respective methodologies remain consistent, we are able to track NSDUH and YRBS trends over time. The YRBS methodology is identical to that used by MCSAAC coalitions in Middlesex County. Not surprisingly, then, MCSAAC data is similar to YRBS data.

Another limitation is the source materials available for tracking substance abuse treatment admissions. The Treatment Episode Data Set (TEDS) does not include all admissions for *all* substance abuse treatment facilities, only those licensed or certified by the State substance abuse agency to provide substance abuse treatment (or are administratively tracked for other reasons). In general, facilities reporting TEDS data are those that receive State alcohol and/or drug agency funds (including Federal Block Grant funds) for the provision of alcohol and/or drug treatment services.

Methods

This profile includes data from 8,012 students in Middlesex County. Each of the ten public school systems participating was randomly assigned a letter and is identified as "Town A," "Town B," etc. (see Table A). In some cases, "town" is a precise label as the public school system serves one town. In other cases, "town" is understood to mean the two or three towns regionalized under one school system. Please note also that "middle school" is here defined as 7th and 8th grades only.

Table A. Student surveys included in this profile, labeled "Middlesex County Student Surveys"

Year	Community	Middle School	High School	
2011	Town A	*	*	
2011	Town B	*	*	
2011	Town C	*	*	
2011	Town D	*	*	
2011	Town E	*	*	
2010	Town F	*	*	
2012	Town G	*	*	
2011	Town H	*	*	
2010	Town I	*	*	
2011	Town J	*	*	
Totals		**3,011**	**5,001**	**Grand Total: 8,012**

(* Individual town numbers reported only to DMHAS)

MCSAAC collected "four core measures" from each of the ten towns listed above. The four measures include age of first use, past 30 day use, perception of risk, and perception of parental disapproval. The three substances measured in this way are alcohol, tobacco, and marijuana.

Beyond the four core measures are survey questions related to alcohol and drug behavior (e.g., riding in a car with an intoxicated driver), questions about cocaine, heroin, and other illicit drugs, and questions about gambling, depression, and suicidal thoughts. Two of the ten school systems did not release to MCSAAC these full reports. Furthermore, questions about gambling and suicide were not included in the MCSAAC survey administered in one town. Therefore, data beyond the "four core measures" are based on seven to eight school districts, with up to 2,199 middle school students and 3,458 high school students.

Summary

Priority Ranking

The Community Needs Assessment Workgroup (CNAW) of Middlesex County assembled in October 2012 to rank the magnitude and impact of six substances and two high risk behaviors on our population's overall health. CNAW members also assessed the readiness of our population to address these problems.

1. Magnitude of the substance abuse / behavioral health problem in Middlesex County, ranked in order from greatest to least:

- Alcohol
- Marijuana
- Suicide
- Heroin-Cocaine-Tobacco (tied)
- Prescription Drug Abuse
- Problem Gambling

2. Impact of the substance / behavioral health problem on the health of the population of Middlesex County, from greatest to least:

- Alcohol
- Suicide
- Heroin
- Cocaine
- Marijuana-Tobacco (tied)
- Prescription Drug Abuse
- Problem Gambling

3. Our capacity to address and improve the problem situation, from most prepared and able, to least prepared and able:

- Alcohol – Prescription Drug Abuse (tied)
- Suicide
- Cocaine-Tobacco (tied)
- Marijuana-Heroin (tied)
- Problem Gambling

CNAW Priority Ranking Matrix - Aggregate Scores

SCALE: 1=Lowest 2=Low 3=Medium 4=High 5=Highest

PROBLEM	MAGNITUDE	IMPACT	CHANGEABILITY	TOTAL
Alcohol	4.3	4.2	3.3	3.9
Tobacco	3.3	3.5	3	3.4
Marijuana	3.7	3.5	2.9	3.4
Prescription Drug Misuse	3.2	3.2	3.3	3.2
Heroin	3.3	3.7	2.9	3.3
Cocaine	3.3	3.6	3	3.3
Problem Gambling	2.9	3	2.4	2.8
Suicide	3.7	4.1	3.2	3.7

Scope and Impact of Substances and High Risk Behaviors

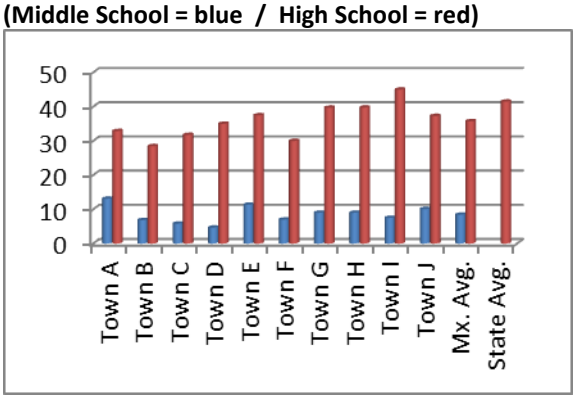
What is the scope of alcohol abuse and underage drinking in Middlesex County?

Connecticut ranks 25th in alcohol consumption among the fifty states. With 55% of American adults reporting that they have had 1+ alcoholic drinks in the past thirty days, that percentage is higher in the northeast states (60%) and higher still in Connecticut at 65 percent. (NSDUH)

On any given day about 12,800 Americans take their first drink of alcohol. The great majority of them (82.4%) are younger than age 21 and approximately 58.6% are younger than 18. Young adults continue to be the heaviest drinkers. Among American youth 18 to 25 years old, the past-30-day drinking rate is 61.03% while in Connecticut it is 70.93 percent. (NSDUH)

Underage drinking is most accurately captured in Middlesex County through student surveys. Between 2010 and 2012, a total of 8,012 students in ten towns answered the question "how many alcoholic drinks have you had in the past 30 days?" The percent of students answering "one or more" is seen in Graph A.

Graph A. Student past-30-day use of alcohol (%)
(Middle School = blue / High School = red)



Source: Mx.Cty. student surveys 2010-2012, YRBSS

The percent of student drinkers shown in Graph A is evidence of a drop in active drinking. At the time of our last report in 2010, 42% of our high school students drank; that number is now 35.7 percent. Similarly, two years ago we reported that 10% of middle school students drank; that number has dropped to 8.3 percent. This downward trend mirrors state averages which dropped from 46% to 41.5% at the high school level (YRBS). Still, Middlesex County and Connecticut students report significantly more "past 30 day" drinking than the American average as captured by NSDUH surveys at 16.8 percent. Table B displays these trends.

Table B. Student 30-day drinking, 2007-2012 (%)

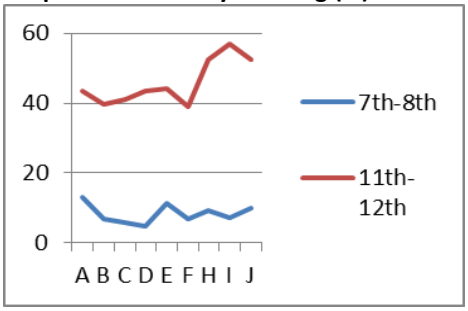
Region	2007-09	2010-12
Middle School, Mx. County	10	8.3
High School, Mx. County	41.6	35.7
High School, Mx. County	41.6	35.7
High School, Conn.	46	41.5
Students age 12-17, Mx. Cty.	31.1	26.5
Students age 12-17, Conn.		16.8
Students age 12-17, USA		13.5

Source: Mx. County student surveys, 2007-2009 & 2010-2012, YRBS, and NSDUH

As shown in Table A, there are significant differences between Middlesex County towns. High school "past 30 day" drinking rates ranged from 28.5% to 45 percent. Middle school students were even more disparate, with a low of 4.7% drinkers at one school and more than three times that number, 13.1%, at another. And while a low rate of 30-day alcohol use among middle school children is obviously desirable, it is not necessarily a predictor for high school drinking rates.

It is usually the case that a high "perception of risk" correlates with a low level of use. We would expect, then, that lower drinking rates in middle school would be accompanied by a high perception of risk, and heavier-drinking older teens would have a lower perception of risk. That is not the case. Graph C shows past-30-day student drinking in nine towns.

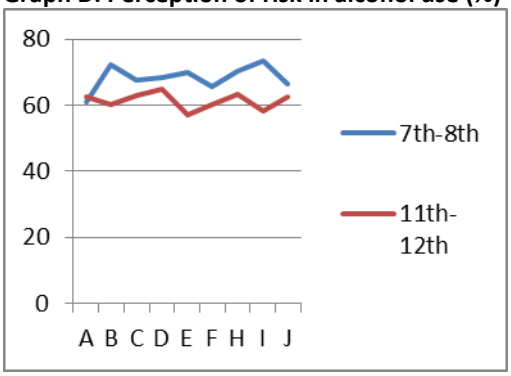
Graph C. Past 30 day drinking (%)



Source: Mx. County student surveys, 2010-2012

As one would expect there is a wide gap between younger children and older teens. But the two groups display a similar perception of risk in using alcohol. In fact, more 11th and 12th grade students in Town A viewed alcohol as a risky substance than did their younger counterparts (Graph D). We hypothesize that alcohol education and social norming campaigns have made juniors and seniors in many high schools highly aware of risk.

Graph D. Perception of risk in alcohol use (%)



Source: Mx. County student surveys, 2010-2012

Binge drinking is an important aspect of alcohol abuse. According to the CDC, binge drinking accounts for half of all deaths due to excessive drinking and three quarters of economic costs associated with problem drinking. Binge drinking is more associated with men – especially young men – than with women, as Table E demonstrates. Table E defines number of drinks as the "largest number of drinks consumed on occasion among binge drinkers (*CDC: Vital Signs).*" Among adults, beer is the choice of binge drinking (74%) while high school students choose hard liquor 50% of the time.

Table E. Largest number drinks consumed by sex and age

Males	9.0 drinks
Females	5.9 drinks
18-24	9.3 drinks
25-34	8.4
35-44	7.6
45-64	6.8
65+	5.7

Source: CDC "Vital Signs," 2010

With the notable exception of Hawaii, binge drinking is a northern phenomenon. Three New England states (ME, VT, MA) are among the states in which 19-27% of adults drinkers binge drink. The second group of states, including Connecticut, binge drink at 17-19 percent. States with the lowest rate of binge drinking (11-17%) include California and the south. It can also be noted that binge drinking increases with household income (CDC: Vital Signs, 2010).

The above data is based on a definition of "binge drinking" as five or more drinks at one time for men, and four or more drinks at one time for women (NIAAA News, 2004, Vol. 3).

Local surveys use a slightly different definition. Students are asked whether they have consumed five or more drinks at a time regardless of gender. More importantly, Middlesex County youth are asked whether they have consumed five or more drinks in a row over the **past two weeks** while YRBS and NSDUH pose the question on a "past 30 day" basis. We would expect, therefore, that local teen binging data would be markedly lower than state and national percentages. The fact that it is *not* (it is less than 1% lower) indicates that binge drinking is a more pervasive problem in Middlesex County (Tables F).

Table F1. Binge Drinking MCSAAC/YRBSS

Middlesex Middle School:	3.5%
Middlesex High School:	21.4%
Connecticut High School:	22.3%

Source: Mx. County surveys, YRBS

Table F2. Binge Drinking MCSAAC/NSDUH

Mx. Cty.	Age 12 to 17:	15.43%
Conn.	Age 12 to 17:	10.17%

Source: Mx. County surveys, NSDUH

Table G presents the percentage of local middle school and high school students who report that in the past *two weeks*, they have had "five or more drinks in a row."

Table G. Local students reporting binge drinking in past 2 weeks (%)

Location	Middle	High
Town B	4.0	19.0
Town C	4.0	19.5
Town D	1.5	23.5
Town E	5.5	26.5
Town F	4.0	18.75
Town H	4.0	26.25
Town I	4.0	32.75
Average	3.86	23.75

Source: Mx. County student surveys

As noted above, overall youth drinking decreased in Middlesex County between 2007-2009 and 2010-2012. Youth binge drinking, though, remained stable. As a result, youthful binge drinkers now account for a greater portion of those age 12-17 who use alcohol.

Drinking and driving is a significant problem in Middlesex County. Focusing on 11th and 12th grade youth – those old enough to drive – we find that 15% of them drove while intoxicated in the past year, with one rural town reporting 25% young drunk drivers. On average, more than a third (36.6%) rode in a car with an intoxicated driver. Towns contributing to these numbers are shown in Graph H. (Comparison with other regions is difficult as the YRBSS uses 30-day data, not 12-month data.)

Table H. 11th-12th grade students (a) driving after drinking or (b) with intoxicated driver, past yr.

Location	(a)	(b)
Town B	8	33.5
Town C	9.5	37.5
Town D	18.5	39
Town E	16	39.5
Town F	16	32.5
Town H	20	33
Town I	25	41
Average	15.1	36.6

Source: Mx. County student surveys

The Consequences of Alcohol Abuse

There were 12 alcohol-related suspensions or expulsions in Middlesex County public schools in 2009, the last year for which data is available (CT Data Collaborative). While few in number, they appear to be correlated with student drinking habits: the greatest number of suspensions was at a school with the lowest number of active (past 30 day) drinkers. The school system with greatest number of drinking students reported *no* alcohol-related suspensions.

The consequences of binge drinking include death from alcohol poisoning. No community is immune to this tragedy as evidenced by State Medical Examiner's Office data. Between 2007 and 2009, 41 people in Middlesex County died from alcohol overdose including 12 in Middletown, 7 in Portland, 4 each in East Haddam and East Hampton, 3 in Haddam, 2 in Westbrook, and one in every other town.

The development of alcohol dependence, or alcoholism, is a consequence of excessive drinking over time. SAMHSA defines alcohol dependence as a chronic disease; patients exhibit strong cravings and the inability to limit drinking. Nationally, an estimated 1.8% of children age 12-17 suffer from alcoholism, a number that jumps to 6.8% in the 18-25 age group and drops back down to 3.6% for the adult (18+) population. In our region of Connecticut, those numbers are about the same: 2% of children, 6.9% of young adults, and 3.4% of adults.

In Middlesex County, many people are treated for alcohol addiction at facilities supported by the State of Connecticut, as shown in Table I. Middlesex County's average of 46 admissions per capita is near the state average of 44.4 per capita.

Table I. Alcohol addiction treatment admissions in 2009 (per capita)

Durham	21	Old Saybrook	47
Chester	27	Middlefield	48
E. Haddam	38	Cromwell	51
Westbrook	38	Killingworth	51
Portland	43	Haddam	58
Middletown	46	Clinton	61
Deep River	47	Essex	66
East Hampton	47	**Mx. Average**	**46**

Source: Connecticut Data Collaborative

Estimates for people who need but are *not* receiving treatment for alcohol dependence and abuse is higher for Connecticut and higher still for our south central region, as shown in Table J.

Table J. Percent population needing but not receiving treatment, past year

Region	12-17yrs.	18-25 yrs.	18+
Total USA	4.55	15.66	7.15
Connecticut	5.12	18.48	7.99
So. Central CT	5.58	19.15	8.36

Source: NSDUH, 2010

There are several ways to measure the high risk behavior of intoxicated driving: number of DUI's issued, number of alcohol- related car accidents, number of deaths involving intoxicated drivers. This report carries no DUI data as records have not been updated since 2006. Alcohol-related car accidents in 2008 are listed by town in Table K. State totals for 2008 included 79 fatal accidents in Connecticut where at least one driver had a BAC of 0.08% or above, with 105 deaths.

Table K. Alcohol related car accidents, rate per population, 2008

Portland	13.74	Deep River	4.34
Clinton	11.46	Killingworth	3.32
Essex	10.76	Westbrook	3.18
Old Saybrook	10.61	Durham	3.02
Haddam	9.78	East Hampton	3.0
Cromwell	9.32	Middletown	2.32
Chester	8.01	Middlefield	0
East Haddam	4.8		

Source: Connecticut Data Collaborative

Our Capacity to Address this Issue

The region has an excellent capacity to further reduce alcohol abuse. All eleven Local Prevention Councils are focused on alcohol as the number one substance of concern. With the recent addition of East Haddam and Durham-Middlefield, the region now boasts five active Drug Free Communities including Clinton, Haddam-Killingworth, and the Tri-Town region. Clinton is operating a Partnership for Success program and the Middletown LPC is a Best Practices coalition with an emphasis on underage drinking.

MCSAAC found ready partners for its responsible hosting campaign, which will see expansion in 2013-2014. Most of our communities are contributing to a 30-second video on intoxicated driving that will run in 2013-2014 at local DMVs. Another common resource is the Middlesex Hospital, which has launched alcohol screenings as part its Emergency Department protocol and is training physicians to do screenings in rural communities.

The downward trend in student alcohol use between 2007 and 2012 evidenced through school surveys is consistent, gradual, and county-wide. This kind of change is sustainable and gives us confidence in our capacity to further reduce alcohol abuse in Middlesex County. CNAW members rated the ability of our population to address this problem at 3.9 on a scale of 5; the highest score of all the substances.

What is the scope of tobacco use in Middlesex County?

Middlesex County youth use tobacco less often than their peers in Connecticut. (This stands in contrast to the higher percentages of alcohol and marijuana use.) Table A compares past-30-day use in Middlesex County with state and national data.

Table A. Past-30-day tobacco use, 2010-2012

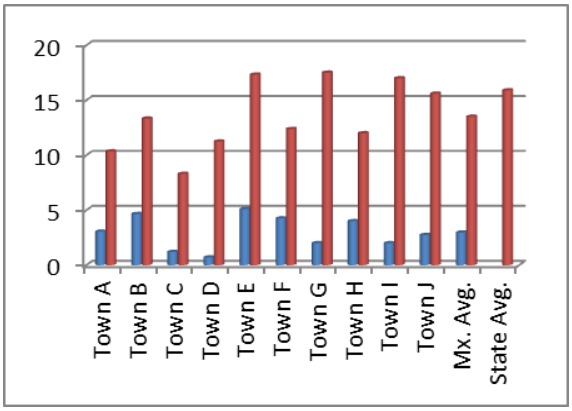
	12-17 yrs.	18-25 yrs.	26+ yrs.
Middlesex	9.99	---	---
Connecticut	12.05	43.4	26.52
USA	10.34	40.17	26.72

Sources: Mx. Cty. Student Surveys, NSDUH

People ages 18-25 are clearly in the highest-risk category. Nearly half of young adults report recent smoking, a rate more than triple than the teen years and nearly double the mature adult years. We can deduce that an effort to quit smoking often takes place after age 25; one factor fueling this behavior might be pregnancy and childrearing.

In the statewide survey most similar to Middlesex County surveys, YRBS found that 15.9% of high school students had smoked in the past month. Middlesex County high schools average favorably at only 13.5%. A town breakdown can be seen in Graph B.

Graph B. Student past-30-day use of tobacco (%) (Middle School = blue / High School = red)



Source: Mx.Cty. student surveys 2010-2012, YRBS

National and local health campaigns against tobacco have clearly made an impact on young people. In fact, local youth now perceive tobacco as considerably risker than alcohol or marijuana. The percentage of Middlesex County students who indicated that people who regularly use the following substances *are at risk or great risk* is as follows:

	Alcohol	Tobacco	Marijuana
Middle School	64	82.7	80.0
High School	64.9	87.2	67.6

Note that high school students perceive tobacco as the riskiest substance (87.2%), even more so than middle school children. Whether that perception of risk is shared by their peers across the state, and carries into young adulthood, remains to be seen. If it does, tobacco use in the 18-25 year age range should drop sharply in Connecticut.

The Consequences of Tobacco Use

The average national compliance rate (those stores inspected and selling only to patrons eighteen years and older) increased from a baseline of 59% in 1997 to a record high of 91.5% in 2004 (SAMHSA). At the same time, the percentage of U.S. high school smokers who purchased cigarettes at a store or gas station in the past 30 days decreased from 39% in 1995 to 14% in 2011 (YRBS).

In Middlesex County in 2012, Connecticut officials performed 61 tobacco vendor compliance checks. Forty-five were in compliance and sixteen were found not in compliance.

All Middlesex County public schools prohibit smoking on school grounds, and many use in-school or out-of-school suspensions to punish offenders (Table C).

Table C. Tobacco-related school suspensions, lowest to highest, 2009

Chester	0	Haddam	3
Deep River	0	Killingworth	3
Essex:	0	East Haddam	5
E. Hampton	0	Durham	6
Old Saybrook	1	Middlefield	6
Portland	2	Cromwell	9
Westbrook	2	Middletown	23
Clinton	3	Total	63

Source: Connecticut Data Collaborative

The health impact of tobacco is severe, from worsened asthma to emphysema and cancers. Clearly, environmental and genetic factors impact lung cancer rates, but smoking remains a major factor. The crude rate for lung cancer in Middlesex County is found in Table D.

Table D. Lung cancer deaths, crude rate

E. Haddam	9.90	Middletown	54.0
Durham	30.0	Cromwell	56.7
Deep River	36.0	Old Saybrook	61.0
Clinton	43.2	Chester	62.2
Middlefield	47.5	Haddam	65.0
Portland	49.4	E. Hampton	65.9
Essex	51.0	Killingworth	66.1
Westbrook	51.8	Average	50.0

Source: Connecticut Dept. of Public Health

Our Capacity to Address This Issue

There are solid resources in Middlesex County for smoking cessation, including Middlesex Hospital and the Community Health Center in Middletown. MCSAAC refers hundreds of people to the Quitline and to 3 private "quit counselors" in our region. MCSAAC holds a two-year contract with DPH for tobacco education at the Connecticut Juvenile Training School; we have had great success with this high-risk 13-17 year old population. CT Valley Hospital, also in Middletown, has recently gone tobacco free.

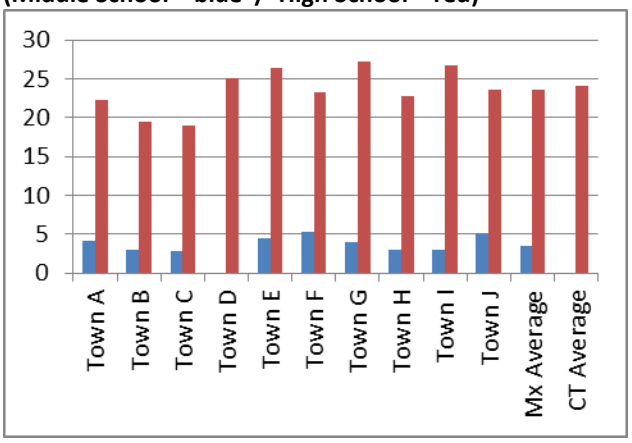
However, despite local and society-wide pressures against tobacco, we are now up against the most intransigent (i.e., most addicted) smokers. For this reason, CNAW members rated the ability of our population to address the tobacco problem at 3.4 on a scale of 5.

What is the scope of marijuana use and abuse in Middlesex County?

In 2010 there were 2.4 million Americans age 12 and older who tried marijuana for the first time; or nearly 6,600 new users daily (NSDUH). Such widespread national use has resulted in a wealth of data about marijuana's impact on your people and adults, allowing us to make ready comparisons between Middlesex County and other regions.

According to NSDUH, only 7.6% of American youth age 12-17 report "past 30 day use" of marijuana. Slightly more (8.6%) do so in Connecticut. However, YRBS puts the Connecticut high school percentage at 24.10%, significantly higher than the NSDUH figure would allow. This higher figure is compatible with MCSAAC data for Middlesex County high school youth. Students at ten local high schools report recent use of marijuana at 23.57 percent. Middle school children reported past month use of marijuana at about 3.5%. The town data is presented in Graph A.

Graph A. Student past-30-day use of marijuana (%) (Middle School = blue / High School = red)



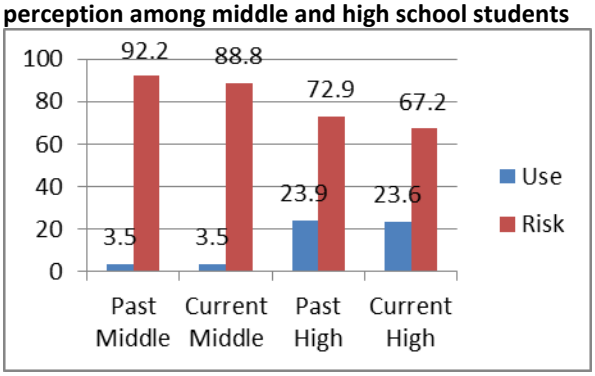
Source: Mx. County student surveys, 2010-2012

Town by town, high school students in Middlesex County smoke or ingest marijuana at similar rates, with a low of 19% in one community and a high of 27% in another (Graph A). As we saw with alcohol use, middle school behavior is *not* predictive of high school behavior. For example, Town D, in which no middle school children reported using marijuana, is home to a high school population in which 25% of the student body uses the drug.

Young adults (18-25 years) are frequent users of marijuana. Although MCSAAC does not have local data for this age group, NSDUH reports a 2011 Connecticut rate of 21.92% young adults using marijuana in the past 30 days. The south central Connecticut rate was somewhat higher in 2010 at nearly 24%, or nearly a quarter of the young adult population.

Marijuana use among 12-17 year olds in Middlesex County has remained steady. In 2007-2009 middle school use averaged 3.5%; it was unchanged in 2010-2012. Similarly, 2007-2009 data for high schools showed 23.9% usage; that number is nearly the same today at 23.6% ("Use," Graph B).

Graph B. Comparison of marijuana use versus risk perception among middle and high school students



Source: Mx. County surveys, 2007-2009 & 2010-2012

Perception of risk is an excellent indicator for what the future may hold. Several years ago 92.2% of the younger children in middle schools believed marijuana to be risky if used on a regular basis and nearly 73% of high schools students thought the same. Graph B shows how those numbers have dropped even though actual use has (so far) remained constant.

The Consequences of Marijuana Abuse

In late 2012, Dr. Nora D. Volkow wrote, "We are increasingly concerned that regular or daily use of marijuana is robbing too many young people of their potential to achieve and excel … THC, a

key ingredient in marijuana, alters the connectivity of the hippocampus, a brain area related to learning and memory. We know from recent research that marijuana use that begins during adolescence can lower IQ and contribute to reduced cognitive abilities during adulthood." (NIH News, Nov. 2012)

Public school systems in Connecticut report "drug-related suspensions and expulsions" in addition to alcohol-related and tobacco-related incidents. Considering that marijuana is the most commonly used drug reported by students, we can infer that the majority of these "drug-related suspensions" were for marijuana. School data from 2007-2009 is the most recent (Table C).

Law enforcement in Connecticut also reports "drug-related underage arrests" for the same time period. Again, we are left to infer that marijuana plays a large role in these juvenile arrests although narcotics are of course included. Table C displays school discipline and law enforcement by town.

Table C: Drug-related school suspensions & Drug-related underage arrests 2007-09

Town	Arrests	Suspensions
Old Saybrook	26	1
Middletown	22	19
Had-Killing	6	8
Tri-Town	6	0
Clinton	4	2
Durham-Mid	3	2
East Hampton	2	0
Portland	2	0
Cromwell	1	2
East Haddam	1	4
Westbrook	1	0
Total	74	38

Source: Connecticut Data Collaborative

Admissions for treatment of marijuana abuse and dependency are captured by "TEDS" (Treatment Episode Data Set, SAMHSA). Fifty-five percent of patients in marijuana treatment first used marijuana by age 14. Fifty-eight percent of patients admitted primarily for marijuana reported abuse of additional substances, usually alcohol. In 2011 in Connecticut, 12.5% of all substance abuse treatment admissions were for marijuana, with about 20% in the 12-20 year age group and 50% in the 21-30 year age group.

According to TEDS, only 15% of marijuana treatment admissions were self-referred (a category that includes individual self-referrals, as well as referrals by friends and family). This percentage was less than half the number of self-referrals for alcohol and cocaine, and about one-quarter the number of self-referrals reported for heroin abuse (56%). How then do marijuana users enter treatment?

Nearly six out of ten people admitted to drug treatment programs for marijuana are referred[1] there by the criminal justice system. In 2008, for example, 57% of those people in treatment with marijuana as their 'primary substance of abuse' were referred by criminal justice. By contrast, criminal justice referrals accounted for just 37% of the overall total of drug treatment admissions in 2008 (SAMHSA).

Our Capacity to Address This Issue

Middlesex County public school administrators and law enforcement personnel are concerned about the impact of the decriminalization of marijuana and its approval as a legal medical drug. MCSAAC staff serve on a statewide medical marijuana task force; MCSAAC board members have formed a marijuana education committee. We anticipate a greater need for capacity building among health care professionals to deal with abuse of medical marijuana and its "diversion."

Because we are thinking ahead and tracking "perception of risk" trends, CNAW members rated our capacity to meet the problem of marijuana abuse at 3.4 out of 5.

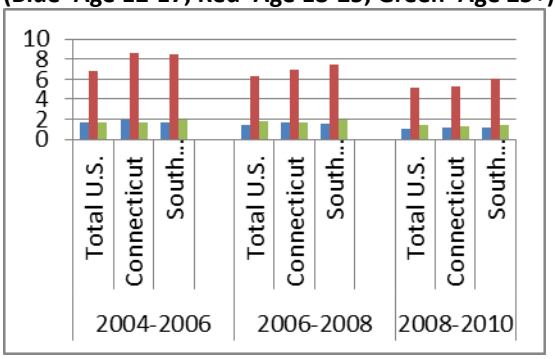
[1] "Referred" is the choice given to defendants between treatment or punishment; most choose the former.

What is the scope of cocaine abuse in Middlesex County?

The majority (71.6%) of the 0.6 million recent cocaine "initiates" (Americans who tried cocaine for the first time) were 18 or older. The average age of an initiate was 21.2 years, which was similar to the average age in 2009 and 2008. (NSDUH, 2010)

In general, the use of cocaine among all age sectors of the American population has slowly declined since 2004. With Connecticut topping national averages, however, and the south central region higher than the state average, Middlesex County still has a significant number of cocaine users. People 18-25 years old smoke, snort, or shoot cocaine at nearly four times the rate of younger and older people (Graph A).

Graph A. Lifetime use of cocaine, all ages (%)
(Blue=Age 12-17; Red=Age 18-25; Green=Age 25+)



Source: NSDUH by 3-year increments

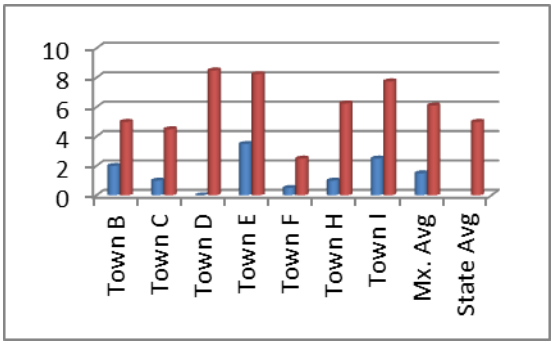
The 2011 YRBS asks, "During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?" Five percent of Connecticut high school youth answered that they'd tried it at least once. Nearly twice as many boys as girls tried cocaine (6.3% v. 3.6%). In years past cocaine was associated with Caucasian people; currently, Hispanic youth lead with just over 7% use with Caucasian and African-American teens in a statistical tie at 4.5% and 3.9% respectively.

Unlike alcohol and marijuana use, where we see a clear age-related rise, cocaine is used sporadically by a small segment of high school students. Those figures in 2011 were:

9th grade	4.2%	11th grade	7.0%
10th grade	1.6%	12th grade	7.0%

More Middlesex County students have used cocaine (6.1%) than the statewide average of five percent. The seven high schools on which our 6.1% average is based are found in Graph B. In addition, about 1.5% of Middlesex County middle school students have tried cocaine at least once.

Graph B. Student lifetime use of cocaine (%)
(Middle School = blue; High School = red)

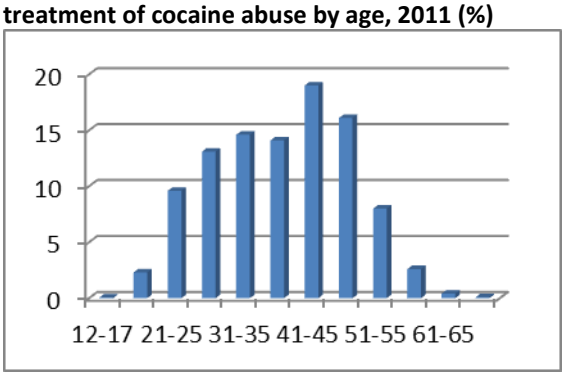


Source: Mx. County student surveys, 2010-2012

The consequences of cocaine abuse

In 2011, substance abuse treatment admissions in Connecticut included 5,551 admissions for cocaine abuse (smoked or "other route"), comprising nearly 9% of substance abuse admissions. Approximately 64% were men and 36% were women. Age at admission was evenly distributed across the life cycle (Graph C).

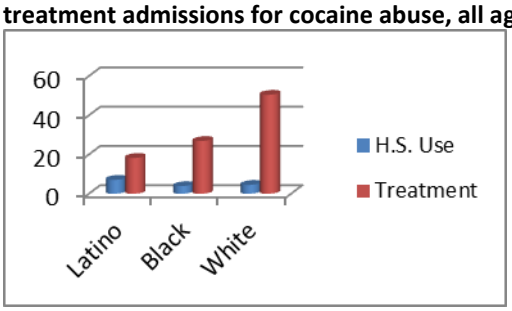
Graph C. Connecticut patients admitted for treatment of cocaine abuse by age, 2011 (%)



Source: Treatment Episode Data Set (TEDS), 2011

Admissions for treatment of cocaine abuse may indicate some inequality in healthcare access. Caucasian people were mostly likely to be treated at 50.45% of admissions; African-Americans next at 26.9% and Hispanics/Latinos least at 18.25%. A comparison of youthful use and current treatment (all ages) is found in Graph D.

Graph D. CT high school cocaine use compared w/ treatment admissions for cocaine abuse, all ages



Source: Treatment Episode Data Set (TEDS), 2011

Our Capacity to Address This Issue

The Latino population may be at greatest risk if rising use among young people remains coupled with a low rate of treatment. While Middlesex County is predominantly Caucasian, and statewide use among that population is trending down, the Middlesex County teen rate has not declined. CNAW members believe that we are not well-prepared to address the issue should more cocaine come into the county. They rated our capacity at 3.3.

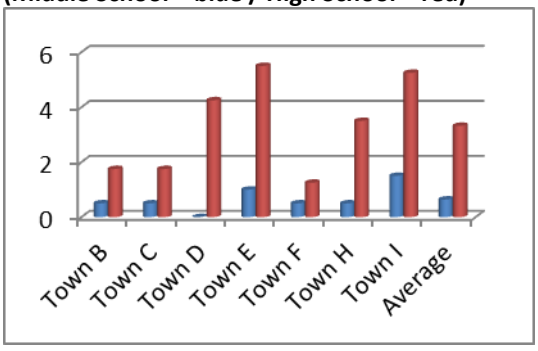
What is the scope of heroin use in Middlesex County?

In 2010 an estimated 140,000 people age 12 or older used heroin for the first time in the past 12 months. The average age at first use was 21.3 years, significantly lower than the 2009 estimate of 25.5 years. (NSDUH)

Connecticut high school students were asked whether they had *ever* used heroin. An average 4.2% of boys and 1.7% of girls responded "yes" for a mean average of 2.9%. (YRBS, 2011) This is a significant gender difference, with two and a half times more boys than girls using heroin. There is also an ethnic divide. While Caucasian (2.5%) and African-American (2%) youth in Connecticut are similar in having tried heroin at least once, Hispanic youth are double that rate at 4.6 percent.

We are unable to draw a direct comparison between statewide and Middlesex County use of heroin. YRBS asks high school students about lifetime use; MCSAAC collects data on past twelve month use. Additionally, MCSAAC data is based on the question: *"How many times, if any, in the last twelve months have you used heroin (smack, horse, skag) or other narcotics (like opium or morphine)?"* Combining heroin with prescription painkillers will inevitably increase the number of students answering yes. The percentage of middle and high school students in our region answering "one or more times" is displayed in Graph A.

(Middle School = blue / High School = red)



Source: Mx. County Student Surveys 2010-2012

The Consequences of Heroin Use

On a national basis, heroin was reported as the primary substance of abuse for 14% of TEDS admissions aged 12 and older in 2010. A full 80% had been in treatment prior to the current episode, and 28% had been in treatment five or more times. Primary heroin admissions were more likely than all other substance abuse admissions to be self- or individually referred, rather than referred by the criminal justice system.

Heroin use takes a heavy toll on productivity. Only 12% of primary heroin admissions aged 16 and older were employed versus 23% of all admissions of that age. (TEDS)

In Connecticut, drug-related mortalities are reported by the Office of the Chief Medical Examiner. The majority are multiple-drug overdoses; it is our assumption that the primary lethal drug is heroin or another opiate-based narcotic. Deaths by town are found in Table B.

Table B. Drug-related mortalities in Middlesex County, 2007-2009

Middletown	12	Cromwell	1
Portland	7	Deep River	1
E. Haddam	4	Durham	1
E. Hampton	4	Essex	1
Haddam	3	Killingworth	1
Westbrook	2	Middlefield	1
Chester	1	Old Saybrook	1
Clinton	1	**Total**	**41**

Source: Office of Chief Medical Examiner

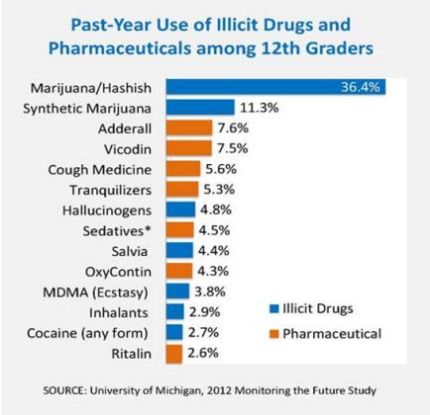
Our Capacity to Address This Issue

The CNAW recognizes all forms of opiates, including heroin, as an immediate threat to the population. Law enforcement is stretched thin in rural towns and heroin has been seized in all regions of the county. The number of treatment admissions and deaths is unacceptable, leading to the CNAW's 3rd place ranking of heroin in terms of impact on health. On the other hand, Rushford and CVH are excellent local resources. The CNAW ranked our capacity at 3.3.

What is the scope of prescription drug abuse in Middlesex County?

Prescription drugs are the second most abused category of substances after marijuana. In 2011, nearly 30 million Americans reported using marijuana while 16 million reported non-medical use of prescription drugs. This trend is reflected in high schools throughout America, as seen by 12th grade student use of substances (Chart A).

Graph A. Past-12 month use of Illicit and Rx drugs, 12th graders



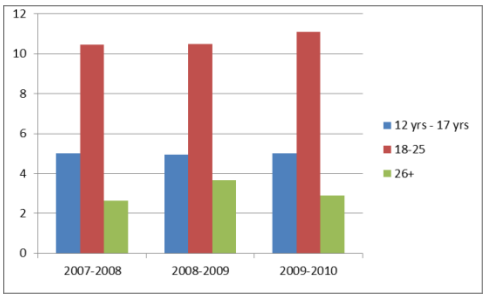
Source: 2012 Monitoring the Future

In 2011 the number of past-year users declined for the first time since 2008: from an estimated 16.1 million in 2010 down to 14.7 million. This decrease also held true, over a longer stretch of time, for users age 12-17: from 4% of youth 12-17 in 2002 to 3% in 2010. (NUSDH)

Prescription drugs are also the second likeliest drug – again, after marijuana – to be tried by first time users. More than two-thirds (68%) of new users in 2011 reported that marijuana was their first drug. The second largest group of new users reporting trying non-medical use of prescription drugs, including pain relievers (14%), tranquilizers (4%), stimulants (3%), and sedatives (1%). (NSDUH)

The most popular prescription drug of abuse is pain relievers. In Connecticut as elsewhere, young adults age 18-25 are the people most likely to abuse them. In 2009-2010, young adult use was estimated at 11.08%, more than twice the rate of youth age 12-17 at 5% and four times the rate of adults age 26+ at 2.08. Graph B. shows past year use of non-medical pain relievers in Connecticut over time. In contrast to past-year use, 9.7% of Connecticut high school students reported using OTC drugs to get high at least once in their life, and 9.6% reported using prescription drugs to get high at least once in the life. (YRBS)

Graph B. Past-Year Use of Non-Medical Pain Relievers in Connecticut



Source: YRBSS

There is little data regarding the youthful misuse and abuse of prescription and over-the-counter drugs in Middlesex County. The only pertinent Search Institute question is, "*How many times …. have you used amphetamines (for example, methamphetamine, crystal meth, uppers, speed, bennies, dexies) without your own doctor's prescription?* The percentage of Middlesex County students using amphetamines is found in Chart C.

Chart C. Past 12-month student use of amphetamines (7th-12th gr.)

Town	Use of Drug
B	3.0
C	2.5
D	6.5
E	7.75
F	4.25
H	5.0
I	6.5
Average	**5.07**

The Consequences of Prescription Drug Abuse

Although the number of Americans abusing prescription drugs has slightly declined, the number of drug-related emergency department (ED) visits involving the misuse or abuse of prescription drugs increased significantly from 2004 to 2010, according to data from the Drug Abuse Warning Network (DAWN- SAMHSA). From a low of 626,000 such visits to the ED in 2004, that number climbed to 1.3 million visits in 2010. Approximately one-half of the prescription abuse related ED visits in 2010 involved pain relievers (both opioid and non-opioid). More than one-third involved drugs to treat insomnia and anxiety. The

1.3 million ED visits for misuse or abuse of pharmaceuticals in 2010 is higher than the 1.1 million ED visits for illicit drugs in 2010, primarily for cocaine (42%) and marijuana (39%). (DAWN)

In Connecticut in 2011, 3,503 people were admitted for opiate dependence (non-heroin) treatment. Of this number, 63% were male and 37% were female, with the overwhelming majority age 21 to 31. The 21-31 age seeking treatment corresponds to the largest number reporting non-medical use of pain relievers mentioned earlier (young adults 18-21).

All 11 school districts in Middlesex County report suspensions and expulsions related to prescription and over-the-counter drugs. One district had four suspensions/expulsions, three districts each had three suspensions/expulsions and the remaining seven districts reported no discipline for prescription and over-the-counter drugs.

Our Capacity to Address This Issue

Local Prevention Councils have taken a more aggressive approach to prescription drug misuse and abuse in the past year, and those efforts will continue. Media campaigns along with training for school staff, sports coaches, and parents are building capacity. Frequent prescription drug take back events throughout the county have raised heightened public awareness. CNAW members rated our population's capacity to address the problem of prescription drug abuse at 3.2.

What is the scope of problem gambling in Middlesex County?

In 2011, the State of Connecticut took fifth place in the "Top 20 U.S. Casino Markets" list published by the American Gaming Association (AGA). Connecticut was topped only by Las Vegas, Atlantic City, "Chicagoland," and Detroit. Gross annual revenue in 2011 was nearly $1.35 billion (AGA) or according to the Connecticut Department of Consumer Protection, was $1.25 billion.

On the state level, Connecticut has lost income from gambling over the past decade. In 2002 the "gross sales for lottery, parimutuel and charitable gaming" was about $1.27 billion dollars. By 2011 it was slightly down at $1.24 billion. The state reported that "Charitable Gaming" including Bingo – which is legal for youth – accounted for $18,035,816 in gross revenue for 2011. (CT Department of Consumer Protection)

Students in Middlesex County were surveyed about their gambling activities in the past twelve months. Table A. displays the percentages of young people from seven local school districts who gambled for money or other valuables. With an average rate of 18.7%, our students gamble at a significantly lower rate than the state average of 25.2% (YRBS)**.** Also, there is a striking difference between the sexes with an average of 25.6% boys reporting gambling in the past twelve months while only 9.2% of the girls did so.

Table A. Percent of middle and high school students who gambled in past 12 months

Location	7^{th}-8^{th}	9^{th}-12^{th}
Town B	12	14.5
Town C	15	15.5
Town D	12	19.75
Town E	11	15.5
Town F	24	22
Town H	13	19.5
Town I	14	24
Average	14.4	18.7
State H.S. Avg.		25.2%

Source: Mx. Cty. surveys & YRBS

The Consequences of Problem Gambling

The Connecticut Council on Problem Gambling (CCPG) compiles an annual report of calls received by their Helpline in the prior year. The vast majority of the 556 calls to the Helpline in 2011 came from Connecticut gamblers or those gamblers' "significant others." Only Connecticut information is included in the following statistics from CCPG:

- Seventy-five percent of the callers were problem gamblers and 25% were significant others.
- Women were almost twice as likely to be the "significant other" caller.
- At age 25-34, nearly three times as many men as women call the Helpline. Among callers age 54+, nearly three times as many women call.
- Of those callers volunteering information on race and ethnicity, 64% were Caucasian, 17% African-Americans, and 4% Latinos.

Anxiety (56.8%) and depression (49.7%) were the most frequently reported emotional responses for both women and men. Family/spousal conflict (38.4%) was the most frequent family issue cited by both women and men. Difficulty paying bills (47.3%), borrowing money (33.3%), and using equity/savings (29.5%) were the most frequently reported financial issues. Women ranked higher in participation in criminal acts, yet men indicated more involvement in the criminal justice system (jail, arrest, and probation) than did the women. (CCPG)

It took a significant amount of time for problem gamblers to contact the Helpline, even after recognizing that they had a problem. Both men and women reported an average of nine years to ask for help. Financial losses in 2011 were estimated by these callers at less than $20,000 (75%), between $20,000 and $50,000 (12.5%), and $50,000 to $100,000 (3.1%). A few callers had lost more than one million dollars.

Our Capacity to Address This Issue

CNAW members felt that state government's dependence on gambling revenues will outpace its support of problem gambling education and treatment for the foreseeable future. Therefore, the lowest rating of 2.8 was given to our community's capacity to address this problem.

What is the scope of suicidal behavior in Middlesex County?

Suicides in Connecticut in 2009 were the second leading cause of death for children age 10-14, the second leading cause for college students, and third for youth age 15-25. (CDC, 2009) Connecticut suicides increased from 358 in 2010 to 371 in 2011. Still, the rate is low compared with other states. The most recent national figures show Connecticut ranked 47th (Public Health Reports, 2010)

Rates of depression and attempts at suicide, along with calls for help to suicide or other hotlines, are fair measures of the potential for suicide. NSDUH, YRBS, and Search Institute surveys include questions about depression and suicide, although they are worded differently and use greatly varying time spans.

NSDUH asks respondents whether they have had one or more major depressive episodes in the *past year*. Nationally, 8.16% of teens (12-17) and 8.24% of young adults (18-25) answered yes. Connecticut rates were slightly lower, with 7.79% of teens and 8% of young adults reporting a major depressive episode. Middlesex County teens (12-17 years) are also asked about their feelings of depression through the Search Institute survey. Table A shows the percentage of students reporting that they "felt depressed most of the time or all of the time" over the *past thirty days*. The average was 9.57% for middle school students and 13.39% for high school students.

Table A. Past-30 day depression among students (%)

Location	Middle	High
Town B	7.5	14.5
Town C	11.0	11.25
Town D	10.5	12.75
Town E	10.0	16.25
Town F	15.5	13.5
Town H	6.0	13.75
Town I	6.5	11.75
Average	**9.57**	**13.39**

Source: Mx. Cty. student surveys

Depression can lead to suicidal thoughts and suicide attempts. The NSDUH asks about "serious thoughts of suicide" in the past *twelve months*. About 6.5% of young American adults age 18-25 reported such thoughts, while their counterparts in Connecticut were about equal at 6.36 percent.

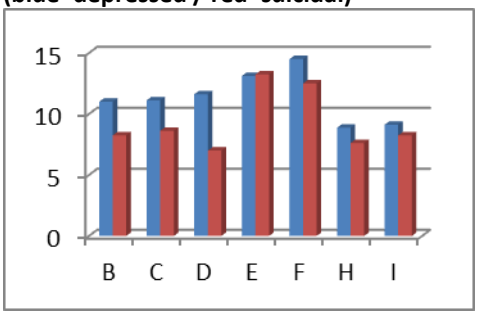
In Middlesex County, youth age 12-17 were asked in school surveys whether they had *ever* (i.e., in their lifetimes) tried to kill themselves. Their answers are found in Table B. A comparison of their depression and suicidal behavior is shown in Graph C.

Table B. Middle and high school students reporting suicidal behavior (lifetime %)

Location	Middle	High
Town B	4.0	12.5
Town C	7.5	9.75
Town D	6.5	7.5
Town E	8.0	18.5
Town F	12.0	13.0
Town H	5.0	10.25
Town I	5.5	11.0
Average	**6.93**	**11.79**

Source: Mx. Cty. student surveys

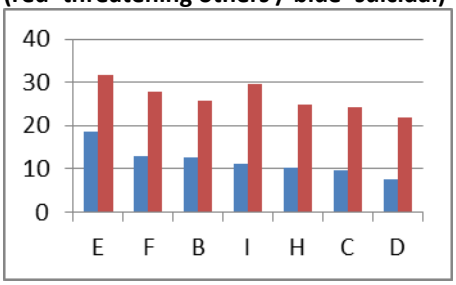
Graph C. Student depression & suicide attempts, by town (%) (blue=depressed / red=suicidal)



Source: Mx. Cty. student surveys

MCSAAC examined local students' reports of depression and suicidal behavior in light of other risky or negative behaviors. We found no relationship between alcohol and drug use and attempts at suicide. The only behavior that appeared correlated, *by school student body*, was the number of youth reporting that they had threatened to physically harm another person. In other words, the more students reporting a suicide attempt at least once in their lives, the more likely the school included a high percentage of threatening behaviors. As shown in Graph D, Town I, with the second highest incidence of threatening behavior, is the only exception.

Graph D. Suicide attempts and threatening behaviors, percent by school/town (red=threatening others / blue=suicidal)



Source: Mx. Cty. student surveys

The consequences of suicidal behavior

United Way 2-1-1 handles both information and referral calls and crisis and suicide calls. In 2010 counselors handled more than 2,000 suicide-related calls statewide. By 2012 that number had risen to 3,400. In Middlesex County alone, residents made 1,451 calls categorized as "outpatient mental health," including a subsection related to suicide.

Completed suicides are reported by the Office of the Chief Medical Examiner and as data, are offered by county and town or city. Middlesex County is ranked first suicide rate for the entire state (Table E1). A breakdown of suicides by town appears in Table E2.

Table E1. CT suicide rates per 100,000 population, 2007-2009

Middlesex	11.1
Litchfield	11.0
Windham	9.9
New London	9.5
Tolland	9.5
Fairfield	6.3
New Haven	7.9
Hartford	7.8
Average	**8.0**

Table E2. Number of Suicides in Middlesex County, 2007-09

Middletown	8	Durham	2
Clinton	6	Portland	2
Killingworth	4	Chester	1
Cromwell	3	Deep River	1
E. Haddam	3	Haddam	1
E. Hampton	3	Middlefield	1
Essex	3	Westbrook	0
Old Saybrook	3	**Total**	**41**

Source: Chief Medical Examiner

Our capacity to address this issue

CNAW members are concerned that Middlesex County ranks highest in the state in suicides, and are particularly concerned about the rate of youth depression and suicide attempts. Staff was trained and began offering an early intervention program, QPR (Question, Persuade, Refer) in October 2012. Three towns immediately requested the program and it is spreading through the county.

Although calls to 2-1-1 related to suicide have risen dramatically statewide, the fact that Connecticut remains a state with a comparatively low rate of suicide may tell us that our interventions are effective. The Middlesex County United Way remains committed to funding the 2-1-1 helpline and MCSAAC will contribute in FY2013 to raising awareness of this resource.

MCSAAC is also involved in a countywide health coalition with potential funding from the CDC; our board is urging that their focus be "social and emotional well-being." CNAW members rated our population's capacity to address the problem of suicidal behavior at 3.7 on a scale of 5, the highest rating after alcohol.